ABSTRACT

An apparatus for reducing storage requirements and for allowing reuse of multiple rake fingers in a spread spectrum system includes a decimation circuit having an associated decimation factor, a memory coupled to the decimation circuit, and an interpolation circuit having an interpolation factor coupled to the memory. The decimation circuit decimates the sampling rate of received data to produce a decimated rate. The received data is stored in the memory at the decimated rate. The decimated rate is later increased by the interpolation circuit by the interpolation factor when the stored data is retrieved from the memory. The memory is a circular buffer or a single port RAM that is accessible by multiple rake fingers substantially simultaneously via selector circuits.